Client's ref.: /2004-01-20 File: 0805-A20021-us/final /Calvin/Steve

What is claimed is:

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1 1. A method of preparing reaction regions for biochips, comprising the steps of:

providing a first member and a second member;

disposing at least one spacer between the first member and the second member to form a reaction region between the first member and the second member; and

filling a sample solution in the reaction region.

- 2. The method of preparing reaction regions for biochips as claimed in claim 1, wherein the first member and the second member are biochips.
- 3. The method of preparing reaction regions for biochips as claimed in claim 2, wherein said biochips are the same.
- 4. The method of preparing reaction regions for biochips as claimed in claim 2, wherein said biochips are different.
- 5. The method of preparing reaction regions for biochips as claimed in claim 1, further comprising a holder to assemble the first member and the second member.
- 1 6. The method of preparing reaction regions for 2 biochips as claimed in claim 1, further comprising 3 enclosing the reaction regions in a sealed environment.

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7. The method of preparing reaction regions for biochips as claimed in claim 1, wherein the first member and the second member are inert to the sample solution.

- 8. The method of preparing reaction regions for biochips as claimed in claim 1, further comprising a step of incubating the reaction region under hybridization condition.
- 9. An apparatus containing reaction regions for biochips, comprising:
 - a first member and a second member disposed in
 parallel; and
 - at least one spacer disposed between the first member and the second member to form a reaction region between the first member and the second member.
- 10. The apparatus as claimed in claim 9, wherein the first member and the second member are biochips.
- 11. The apparatus as claimed in claim 10, wherein said biochips are the same.
- 1 12. The apparatus as claimed in claim 10, wherein said biochips are different.
- 1 13. The apparatus as claimed in claim 9, further comprising a holder to assemble the first member and the second member.

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1 14. The apparatus as claimed in claim 9, wherein 2 the reaction regions are enclosed in a sealed 3 environment.

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